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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,677	03/30/2001	Kurt James Korkowski	STL9563	6119

7590 06/29/2005

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EXAMINER

DAVIS, DAVID DONALD

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,677

Applicant(s)

KORKOWSKI ET AL.

Examiner

David D. Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-11 and 16-28 is/are pending in the application.
4a) Of the above claim(s) 18-28 is/are withdrawn from consideration.
5) ☒ Claim(s) 17 is/are allowed.
6) ☒ Claim(s) 5,6,8,10,11 and 16 is/are rejected.
7) ☐ Claim(s) 7 and 9 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 18-28 in the reply filed on December 7, 2004 is acknowledged. The traversal is on the ground(s) that "group II claims actually include product claims 18-23 and product-by-process claims 24-28 . . . Applicant also clearly identified claim 24 as a linking claim". This is not found persuasive because group II claims, as stated previously, as claimed, are related as process for **using** and the product. The product claims, which include a shroud that is not set forth in the process for using claims, are distinct from the process of **using** claims. Applicant then states in separate communications that claim 24 is linking claim. This statement is curiously made because no reason is given as to why it is a linking claim. The MPEP states in section 809.03 that :

The most common types of linking claims which, if allowed, act to prevent restriction between inventions that can otherwise be shown to be divisible, are

(A) genus claims linking species claims;

(B) a claim to the necessary process of making a product linking proper process and product claims;

(C) a claim to "means" for practicing a process linking proper apparatus and process claims; and

(D) a claim to the product linking a process of making and a use (process of using).

Again, curiously the instant situation, a product and process of **using** is not listed among the examples, supra. Section 809.03 of the MPEP also states, regarding linking claims, that "presented in the same case are one or more claims (generally called "linking" claims) inseparable therefrom and thus linking together the inventions otherwise divisible" It has be

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shown that the two sets of claims are separable and there is nothing in the claims that show the claims are inseparable. Claims 18-28 are product claims and claims 18-23 require a shroud; however, claims 5-11 and 16-17 do not require a shroud and are not product claims. Claims 5-11 and 16-17 require a surface to be mechanically isolated from the actuator arm, however, claims 18-28 do not require a surface to be mechanically isolated.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 5, 6, 8, 10, 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider (US 4,001,889) in view of Walsh (US 3,731,291). Schneider shows in figure 1

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an actuator arm of a disc drive. However, Schneider is silent as to a method of or mechanism for reducing a flow-induced disturbance on the actuator arm of the disk drive.

Regarding claim 5, Walsh shows in figure 1 a method of reducing a flow-induced disturbance in a disc drive, which includes transducer assemblies 18 and recording heads. Figure 1 shows redirecting a portion of a tangential gas flow generated by a rotation of a first disc 11 of the disc drive along a surface and toward an inner diameter. Regarding claim 6, disc 11 of Walsh has a nominal radius R and in which the surface defines a channel 26, 28 and 31 and is considered to include a radius of curvature greater than $R/100$. Regarding claim 8, Walsh shows in figure 1 a method of reducing a flow-induced disturbance in a disc drive, which includes transducer assemblies 18 and recording heads. Figure 1 shows redirecting a portion of a tangential gas flow generated by a rotation of a first disc 11 of the disc drive along a surface impinging the redirected portion on an outer edge of the first disc in a direction toward an inner diameter.

Regarding claim 10, Walsh discloses the redirected portion of the gas flow and is considered to have a velocity that is at least 50% of the tangential gas flow velocity. Regarding claim 11, disc 11 of Walsh has a nominal radius R in which the channel forms a lateral width considered greater than $R/100$. Regarding claim 16, Walsh has a second disc, as shown in figure 5, configured for co-rotation with the first disc with the surface of element 63, for example, does not extend into a space between the first and second discs.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the disk drive of Schneider having an actuator arm with a method of or mechanism for reducing a flow-induced disturbance on the actuator arm as taught by

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Walsh. The rationale is as follows: one of ordinary skill in the art at the time the invention was made would have been motivated to provide the disk drive having an actuator arm with a method of or mechanism for reducing a flow-induced disturbance on the actuator arm so as to exert less force on the actuator, as well as, clean the air inside the disk drive.

Assuming arguendo that the channel does not have a radius of curvature greater than $R/100$ or a lateral width greater than $R/100$, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the channel of Walsh with a radius of curvature greater than $R/100$ and/or a lateral width greater than $R/100$. The rationale is as follows: the purpose of the channel is to redirect the gas flow. The channel need not have a radius of curvature greater than $R/100$ or a lateral width greater than $R/100$ to redirect the airflow. Realizing this, one of ordinary skill in the art at the time the invention was made would have been motivated to provide the channel with a radius of curvature greater than $R/100$ or a lateral width greater than $R/100$, which is well within the purview of a skilled artisan and absent an unobvious result, to achieve a specific predetermined airflow to optimal exert less force on the actuator, as well as, clean the air inside the disk drive.

Assuming arguendo that the redirected portion of the gas flow does not have a velocity that is at least 50% of the tangential gas flow velocity, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the redirected portion of the gas flow of Walsh with a velocity that is at least 50% of the tangential gas flow velocity. The rationale is as follows: the purpose of the channel is to redirect the gas flow. The channel need not have at least 50% of the tangential gas flow velocity to redirect the gas flow. Realizing this, a one of ordinary skill in the art at the time the invention was made would have

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been motivated to have a redirected portion of the gas flow with a velocity that is at least 50% of the tangential gas flow velocity, which is well within the purview of a skilled artisan and absent an unobvious result, to achieve a specific predetermined airflow to optimal exert less force on the actuator, as well as, clean the air inside the disk drive.

Allowable Subject Matter

5. Claims 7 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claim 17 is allowable over the prior art of record.

Response to Arguments

7. Applicant's arguments filed March 4, 2005 have been fully considered but they are not persuasive. Applicant asserts in the first line on page 8 that "Walsh '291 plainly does not redirect a portion of a tangential gas flow". Applicant's arguments are applying a more limited meaning to the phrase "*a portion of a tangential gas flow*" than actually exists. A portion of the gas flow is not *all* the gas flow, and tangential gas flow is not gas flow following an exact geometric tangent line. Nonetheless, applicant is suggesting that molecule after molecule and atom upon atom is lining up. Curiously, applicant's instant specification states the following: "The combined flow (shown in region 174 of Fig. 1) then has a substantial inward radial component. (As used herein, a flow direction has a "substantial" radial component if the flow

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direction differs from the tangent direction by about 2 degrees or more.)” The accepted meaning, the dictionary meaning, the claimed meaning and the disclosed meaning of the phrase “a portion of a tangential gas flow” is not as limiting as the meaning purported in applicant’s arguments. Therefore, contrary to applicant’s assertion, the pending claims in the instant application are obvious over Schneider as modified by Walsh, as stated, supra.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

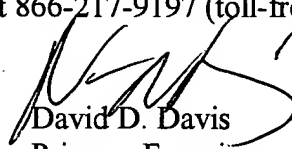
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Davis whose telephone number is 571-272-7572. The examiner can normally be reached on Monday thru Friday between 7:30-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David D. Davis
Primary Examiner
Art Unit 2652

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